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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,115	05/30/2001	Yong S. Chen	CLX-701	6532

7590 09/09/2003
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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/09/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/870,115

Applicant(s)

CHEN, YONG S.

Examiner

MONZER R CHORBAJI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

This final office action is in response to the amendment received on 06/13/2003

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flashinski et al (U.S.P.N. 6,031,967) in view of Barnhart (U.S.P.N. 6,413,476).

With respect to claims 1 and 10, Flashinski teaches a system (10) and a heat-regulating container (14) for dispensing insecticides (26) into an atmosphere including the following: a heat-regulating container (14) having reservoir with insecticide (22), a lower surface (32) having integral leg support structure (30), a heating device (10) with a heating surface (12) at elevated temperature adapted to receive the heat-regulating container (14) and a plurality of integrally formed leg structure extending directly between the lower surface of the container (figure 4, 20, 30, and 12) and the heating

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surface (30A, 31A and col.4, lines 20-22) for regulating heat transfer from the heating surface (figure 4, 12) to the volatile material (figure 4, 26). Flashinski heating means is through convection heating and fails to disclose that the integral leg support structure is in direct contact with a heating surface in order to regulate the temperature of the volatile material in the container. Barnhart discloses a container (3) whose bottom surface is in direct contact with the heating surface (6) in order to regulate the heat transfer from the heating surface to the volatile material (102) in the container. It would have been obvious to one having ordinary skill in the art to substitute the known convective heating means of Flashinski with the known conductive heating means of Barnhart since such a substitution makes the heating surface closer to the insecticide material for faster dispensing.

With respect to claims 3-4 and 17, Flashinski teaches the following: reservoir (22) contains a porous solid substrate and the volatile material is impregnated within the substrate (col.1, lines 65-67 and col.2, lines 1-2), volatile material is in a gel form (col.3, line 52) and the container (22) includes a volatile insecticide material (26).

With respect to claims 5-6 and 8-9, Flashinski discloses the following: container is made of metal (20 and col.3, lines 34-36), plurality of integral leg support structures (30A and 31A), plurality of integral leg support structures are provided in a pattern over an entire lower surface of the container (30) and handle means (35).

With respect to claim 7, Flashinski does not teach of a support structure in a zig-zag pattern, however such a construction for supporting the container is a matter of design choice that is well within the scope of the artisan.

With respect to claims 11-12, Flashinski teaches a container with two integrally formed leg structures such that the height of the legs must intrinsically falls within such a range.

With respect to claims 13-16, Flashinski teaches the following: a closure means for retaining the volatile material in the reservoir (28), the closure means includes an impermeable film (col.3, lines 4-5), the closure means includes a semi permeable membrane (col.2, line 65) and the closure means includes a permeable membrane (col.2, line 65).

4. Claims 1 and 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flashinski et al (U.S.P.N. 6,031,967) in view of Encyclopedia Britannica Online.

With respect to claims 1 and 10, Flashinski teaches a system (10) and a heat-regulating container (14) for dispensing insecticides (26) into an atmosphere including the following: a heat-regulating container (14) having reservoir with insecticide (22), a lower surface (32) having integral leg support structure (30), a heating device (10) with a heating surface (12) at elevated temperature adapted to receive the heat-regulating container (14) and a plurality of integrally formed leg structure extending directly between the lower surface of the container (figure 4, 20, 30, and 12) and the heating surface (30A, 31A and col.4, lines 20-22) for regulating heat transfer from the heating surface (figure 4, 12) to the volatile material (figure 4, 26). Flashinski heating means is through convection heating and fails to disclose that the integral leg support structure is in direct contact (conduction heating) with the hot surface in order to regulate the temperature of the volatile material in the container. The Encyclopedia Britannica

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discloses three known means of heating an object. It would have been obvious to one having ordinary skill in the art to substitute the known convective heating means of Flashinski with the known conductive heating means of Encyclopedia Britannica since such a substitution result in moving the heat from one object directly to another object (Encyclopedia Britannica Online, line 13).

With respect to claims 3-4 and 17, Flashinski teaches the following: reservoir (22) contains a porous solid substrate and the volatile material is impregnated within the substrate (col.1, lines 65-67 and col.2, lines 1-2), volatile material is in a gel form (col.3, line 52) and the container (22) includes a volatile insecticide material (26).

With respect to claims 5-6 and 8-9, Flashinski discloses the following: container is made of metal (20 and col.3, lines 34-36), plurality of integral leg support structures (30A and 31A), plurality of integral leg support structures are provided in a pattern over an entire lower surface of the container (30) and handle means (35).

With respect to claim 7, Flashinski does not teach of a support structure in a zig-zag pattern, however such a construction for supporting the container is a matter of design choice that is well within the scope of the artisan.

With respect to claims 11-12, Flashinski teaches a container with two integrally formed leg structures such that the height of the legs must intrinsically falls within such a range.

With respect to claims 13-16, Flashinski teaches the following: a closure means for retaining the volatile material in the reservoir (28), the closure means includes an impermeable film (col.3, lines 4-5), the closure means includes a semi permeable

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membrane (col.2, line 65) and the closure means includes a permeable membrane (col.2, line 65).

Response to Arguments

5. Applicant's arguments filed 06/13/2003 have been fully considered but they are not persuasive.

On page 6 of the response, applicant argues, "the Encyclopedia Britannica Online reference simply cannot stand or be considered a proper reference for combination with any other general or specific teaching regarding insecticides and similar emanators". The Encyclopedia Britannica Online reference is analogous and germane to the present invention since it shows the three methods of heating (conduction, convection, and radiation) a material are known and the present invention uses conduction to heat material. In addition, The Encyclopedia Britannica Online reference is only used to show that conduction and convection methods for heating material are known. The reference is not used for a specific application.

On page 7 of the response, applicant argues, "It will be appreciated that the prior art fails to show a container for dispensing volatile insecticidal material in which a lower surface for contacting a heating surface has integral leg support structure to regulate heat transfer from the heating surface to the volatile material". Flashinski et al discloses a container for dispersing volatile insecticidal material whose lower surface has integral leg support structure (figure 5, 26A and 31A). With regard to the concept of regulating heat transfer, the specification on page 11, lines 7-11, teaches that the number and pattern of leg support means may vary to achieve the desired results meaning

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temperature regulation, step-down or insulation. Flashinski et al teaches various number and patterns of leg support (col.4, lines 20-22). Thus, this teaching discloses the concept of having an integral leg support for regulating heat transfer from the heating surface (12) to the volatile material (26). Also, Flashinski et al teaches the concept of creating an air gap that serves as a temperature control means (figure 4, 34). See specification, page 11, numbered lines 13-15.

On page 7 of the response, applicant argues, "Both Flashinski et al and Barnhart fail to teach of a container for vaporizing insecticidal material in which a plurality of integrally formed leg structures extend directly between the lower surface of the container and the heating surface of the heating device for regulating the transfer of heat to the insecticide". Flashinski et al discloses a container for vaporizing insecticidal material (figure 4, 26) in which a plurality of integrally formed leg structures (col.4, lines 20-22) extend directly between the lower surface (figure 4, 30) of the container and the heating surface of the heating device (figure 4, 12). With respect to regulating the transfer of heat to the insecticide, please refer to the above discussion of such a concept.

On pages 7-8 of the response, applicant argues, "the device taught in Flashinski has no lower surface with integral leg structures which extend directly between a reservoir of insecticide and a heating surface". With respect to phrase "in direct contact" in claims 1 and 10, such a phrase does not constitute a limitation. Further, Flashinski et al does disclose a container with a lower surface (figure 5, unlabeled lower surface) with integral leg structure (figure 5, 30A, 31A, and col.3, lines 34-39) such that the container

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and the leg structures are built as one piece. The Flashinski et al reference is used for convective heating method and not for conductive heating method. The Barnhart reference, which teaches conductive heating discloses a container (3) whose bottom surface is in direct contact with the hot surface (6) in order to regulate the temperature of the volatile material (102) in the container such that it would have been obvious to one having ordinary skill in the art to substitute the known convective heating means of Flashinski with the known conductive heating means of Barnhart since such a substitution makes the heating surface closer to the insecticide material for faster dispensing.

On page 8 of the response, applicant argues, "the device taught in Barnhart has no lower surface with integral leg structures which extend directly between a reservoir of insecticide and a heating surface". The Barnhart reference is only used to show that using conductive heating method to vaporize insecticidal material is known by having a heat-regulating surface (3) in direct contact with a heating surface (6) to transmit heat to the insecticide (102). With respect to the integral leg structures, Flashinski et al teach such a limitation.

On page 9 of the response, applicant argues, "Thus, Flashinski teaches away from any direct contact between the lower surface of the container and the heating element, and Barnhart teaches away from using legs to create an air gap between the lower surface of the container and the heating element". Indicating "a problem" is not teaching away. It is an indication of a preference to do it another way. Flashinski et al does not say it does not work only that it could (emphasis added) cause it to heat too

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rapidly. Again, Flashinski et al teaches convective heating and Barnhart teaches conductive heating such that it would have been obvious to one having ordinary skill in the art to substitute the known convective heating means of Flashinski with the known conductive heating means of Barnhart since such a substitution makes the heating surface closer to the insecticide material for faster dispensing. Thus, the two methods in heating volatile materials is known such that substituting one method for the other along with inherent structural changes is a matter of choice of the artisan.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji *MRC*
Patent Examiner
AU 1744
September 3, 2003

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